

1. (Currently amended) A rail manufacturing method, comprising:

- a) hot-rolling a billet into a form of a rail having a high temperature; and
- b) ~~after step (a), cooling the high temperature rail to ambient temperature, wherein the rail is maintained in an upright position when a surface temperature at a head of the rail is in a temperature range of substantially 400 °C to 250 °C, and in which the rail is cooled naturally on a cooling bed without a use of both of an insulation and an accelerated cooling procedure, and maintaining the rail on a cooling bed in an upright position without a use of both (i) an insulation and (ii) an accelerated cooling procedure and naturally cooling the rail when a surface temperature of a head of the rail is in a temperature range of approximately 400° C. to approximately 250° C.,~~

wherein the curvature of the rail in a vertical direction can be controlled through a weight of the rail.

2 – 6. (Cancelled)

7. (Currently amended) The rail manufacturing method according to claim 1, further comprising:

- c) maintaining the rail on the cooling bed in the upright position and mechanically restraining a foot of the rail when the surface temperature of the head of the rail is in a temperature range of approximately 800° C. to approximately 400° C wherein the rail is maintained in an upright position when a surface temperature at a head of the rail is in a temperature range of substantially 800 °C to 400 °C while the foot of the rail is mechanically restrained on the cooling bed by a clamp apparatus.

8. (Currently amended) The rail manufacturing method according to claim 1, further comprising:

d) accelerated cooling the head and a foot of the rail maintained in the upright position when (i) the surface temperature of the head of the rail reaches a temperature range of approximately 550° C. to 450° C., or (ii) a surface temperature of the foot of the rail reaches a temperature range of approximately 550° C. to 450° C. while the foot of the rail is mechanically restrained on the cooling bed by a clamping apparatus wherein step (b) comprises, while mechanically restraining the foot of the rail and while at the same time maintaining the rail in the upright position, performing accelerated cooling at a head and a foot of the rail at a speed of substantially 1 °C per second to 20 °C per second, wherein the accelerated cooling is performed when one of (i) a surface temperature of at least the head is in a temperature range of substantially 550 °C to 450 °C, and (ii) the surface temperature of the foot of the rail is in a temperature range of substantially 500 °C to 450 °C.

9. (Original) The rail manufacturing method according to claim 8, wherein one of the surface temperature of the head of the rail which begins the accelerated cooling and the surface temperature of the foot part of the rail which begins the accelerated cooling is the temperature at which a structure of the rail is austenitic.

10. (Previously presented) The rail manufacturing method according to claim 1, wherein, after step (a), the rail is maintained in the upright position until an ambient temperature is reached.
11. (Original) The rail manufacturing method according to claim 10, wherein a cross-sectional shape of the rail is measured online during a conveyance of the rail that has been placed into the upright position after step (a).
12. (Original) The rail manufacturing method according to claim 11, wherein the length of the rail is between substantially 80 meters and 250 meters.
13. (New) The rail manufacturing method according to claim 7, wherein step c) is performed before step b).
14. (New) The rail manufacturing method according to claim 8, wherein step d) is performed before step b).